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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/988,225	11/19/2001	Osman Ozturk	3891-5	8105

7590 09/28/2004

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EXAMINER

DAO, MINH D

ART UNIT	PAPER NUMBER
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2682

DATE MAILED: 09/28/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/988,225

Applicant(s)

OZTURK ET AL.

Examiner

MINH D DAO

Art Unit

2682

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-32 is/are pending in the application.
4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 12-17 is/are allowed.
- 6) ☒ Claim(s) 1-8 and 18-25 is/are rejected.
- 7) ☒ Claim(s) 9-11 and 26-32 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 4.
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: ____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

1. Claims 1-4, 18-25 are rejected under 35 U.S.C. 102(e) as being anticipated by Cedervall et al. (US 6,011,974).

Regarding claim 1, Cedervall teaches a method for determining a location of a mobile radio (see fig. 1, item 208, MS), comprising:
determining location information for plural cells in a set of cells associated with the mobile radio (see fig. 1, base stations BS0, BS1, and BS2; col. 7, lines 15-26), and
using the cell location information to determine a location of the mobile radio (col. 7, lines 15-26).

Regarding claim 2, Cedervall teaches the method in claim 1, wherein the set of cells includes an active set of cells for the mobile radio (see fig. 1, base stations BS0, BS1, BS2, and mobile radio MS). In this case, the neighboring base stations BS0, BS1, and BS2 of the MS read on the active set of cells of the present invention.

Regarding claim 3, Cedervall teaches the method in claim 1, wherein the set of cells includes cells that are cells currently supporting a handover communication with the mobile radio (col. 2, lines 38-41).

Regarding claim 4, Cedervall teaches the method of claim 3, wherein the set of cells includes cells that are candidates for supporting a communication with the mobile radio (see fig. 1, base stations BS0, BS1, BS2, and mobile radio MS; col. 2, lines 38-41). In this case, the neighboring base stations of mobile MS inherently read on the "candidates for supporting a communication with the mobile radio" of the present invention.

Regarding claim 18, Cedervall teaches a node in or coupled to a radio access network (see fig. 1, Node 203 (MPC)) for determining a location of a mobile radio comprising electronic circuitry configured to perform the following tasks:
determine a set of cells associated with the mobile radio (see fig. 1, base stations BS0, BS1, and BS2; col. 7, lines 15-26); determine cell location information for cells in the set of cells; and use the cell location information to determine a location of the mobile radio

(col. 7, lines 15-26). In this case, Node MPC 203 of Cedervall would inherently include electronic circuitry in order to implement its functions.

Regarding claim 19, the claim has the limitations as that of claim 2 and therefore is interpreted and rejected for the same reason set forth in the rejection of claim 2.

Regarding claim 20, the claim has the limitations as that of claim 4 and therefore is interpreted and rejected for the same reason set forth in the rejection of claim 4.

Regarding claim 21, the claim has the limitations as that of claim 3 and therefore is interpreted and rejected for the same reason set forth in the rejection of claim 3.

Regarding claim 22, the claim has the limitations as that of claim 5 and therefore is interpreted and rejected for the same reason set forth in the rejection of claim 5.

Regarding claim 23, the claim has the limitations as that of claim 6 and therefore is interpreted and rejected for the same reason set forth in the rejection of claim 6.

Regarding claim 24, the claim has the limitations as that of claim 7 and therefore is interpreted and rejected for the same reason set forth in the rejection of claim 7.

Regarding claim 25, the claim has the limitations as that of claim 8 and therefore is interpreted and rejected for the same reason set forth in the rejection of claim 8.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

2. Claims 5-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cedervall et al. (US 6,011,974) in view of Dunn et al. (US 5,758,288).

Regarding claim 5, Cedervall, as mentioned above, teaches the limitations of claim 1. However, Cedervall fails to teach that the cell location information includes information defining one or more boundaries of each of the cells. Dunn, in an analogous art, teaches defining boundaries of the cells (col. 15, lines 25-30). Therefore it would have been obvious to one of ordinary skill in the art at the time of the invention was made to provide the teaching of Dunn to Cedervall in order to provide predetermined customized user zones in a wireless telephone system so as to provide customized billing and/or geographically restricted telephone access as suggested by Dunn (col. 5, lines 62-65).

Regarding claim 6, the combination of the teachings of Cedervall and Dunn teaches that the cell location information includes coordinates of boundary positions for each cell (Reference Dunn, col. 15, lines 25-30).

Regarding claim 7, the combination of the teachings of Cedervall and Dunn teaches selecting certain ones of the coordinates to define the mobile location (Reference Dunn, col. 7, lines 14-22).

Regarding claim 8, the combination of the teachings of Cedervall and Dunn teaches that each boundary position includes a horizontal coordinate and a vertical coordinate (Reference Dunn, col. 16, lines 24-38; also see fig. 6). In this case, customized zone 84 geographically represents the boundary coverage of several cells and therefore each of its boundary points must inherently includes a horizontal and a vertical coordinate.

Allowable Subject Matter

3. Claims 9-11, 26-32 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Regarding claim 9, cited references Cedervall and Dunn teach the limitations of claim 8. However, the combination of Cedervall and Dunn fails to teach comparing the horizontal coordinates; selecting one or more of the horizontal coordinates; comparing the vertical coordinates; selecting one or more of the vertical coordinates; and using the selecting horizontal and vertical coordinates to define the mobile radio location. As specified in the claim.

Regarding claim 26, cited reference Cedervall teaches the limitations of claim 25. However, Cedervall fails to teach compare the horizontal coordinates; select one or more of the horizontal coordinates; compare the vertical coordinates; select one or more of the vertical coordinates; and use the selected horizontal and vertical coordinates to define the mobile radio location.

Regarding claim 29 cited reference Cedervall teaches the limitations of claim 18. However, Cedervall fails to teach obtain coordinates of cells in the set; analyze a first

group of lowest horizontal coordinates for the set of cells and select a highest coordinate from the first group; analyze a second group of highest horizontal coordinates for the set of cells and select a lowest coordinate from the second group; analyze a third group of lowest vertical coordinates for the set of cells and select a highest coordinate from the third group; analyze a fourth group of highest vertical coordinates for the set of cells and select a lowest coordinate from the fourth group; determine a location of the mobile radio using the selected coordinates from some of the first, second, third, and fourth groups.

4. Claims 12-17 are allowed.
5. The following is an examiner's statement of reasons for allowance:

Regarding claim 12, cited references Cedervall and Dunn teach a method for determining a location of a mobile radio comprising: obtaining previously determined coordinates of plural cells in a set of cells associated with the mobile radio, where each coordinate may be defined with a horizontal coordinate and a vertical coordinate. However, the combination of the teachings of Cedervall and Dunn fails to teach analyzing a first group of lowest horizontal coordinates for the set of cells and selecting a highest coordinate from the first group; analyzing a second group of highest horizontal coordinates for the set of cells and selecting a lowest coordinate from the second group; analyzing a third group of lowest vertical coordinates for the set of cells and selecting a

highest coordinate from the third group; analyzing a fourth group of highest vertical coordinates for the set of cells and selecting a lowest coordinate from the fourth group; determining a location of the mobile radio using the selected coordinates from some or all of the first, second, third, and fourth groups. As specified in the claim.

Conclusion

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- a. Corbett et al. (US 6,351,642) discloses CDMA Soft Hand-Off.
- b. Houde et al. (US 6,128,481) discloses System And Method of Routing Emergency Services Calls In A Radio Telecommunications Network.

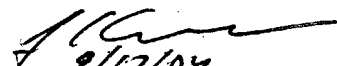
Any inquiry concerning this communication or earlier communications from the examiner should be directed to MINH D DAO whose telephone number is 703-305-5589. The examiner can normally be reached on 8:30 AM - 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, VIVIAN C CHIN can be reached on 703-308-6739. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Art Unit: 2682

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Minh Dao
Art Unit 2682
September 10, 2004 *MD*


9/17/04
LESTER G. KINCAID
PRIMARY EXAMINER